

AIR COMMAND AND STAFF COLLEGE

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Regionally Integrated Air and Missile Defense: The Future of Defense  
and Deterrence in the Middle East

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### **Abstract**

Regionally Integrated Air and Missile Defense between the United States and its Gulf Cooperation Council allies is a feasible and desirable. The United States in an attempt to bolster air and missile defense in the Middle East, is embarking on a Regionally Integrated Air and Missile Defense (RIAMD) system of systems. To describe this effort as anything but ambitious and complex would be oversimplifying the situation. Once fully realized RIAMD will produce a framework that synchronizes regional missile defense by linking existing national air operations centers. This linkage will enhance the overall decision making process and significantly improve interoperability including tactics and rules of engagement between the US and the GCC. Regionally Integrated Air and Missile Defense in the Middle East is the future of defense and deterrence in the region.

## INTRODUCTION

The United States in an attempt to bolster air and missile defense in the Middle East, is embarking on a Regionally Integrated Air and Missile Defense (RIAMD) system of systems. To describe this effort as anything but ambitious and complex would be oversimplifying the situation. Once fully realized RIAMD will produce a framework that synchronizes regional missile defense by linking existing national air operations centers. This linkage will enhance the overall decision making process and significantly improve interoperability including tactics and rules of engagement between the US and the GCC. Regionally Integrated Air and Missile Defense in the Middle East is the future of defense and deterrence in the region. The natural questions that arise in the establishment of RIAMD include asking; if the system is needed, if its establishment is feasible, desirable, and achievable and what is the way ahead.

Before proceeding, it is important to understand exactly what integrating air defense really means. Integration is the process of linking sensors to shooters; air battle managers to aircraft and Ground Based Air Defense systems. Integrating Air Defense is not a new concept. It was Air Chief Marshal Hugh Dowding of the Royal Air Force who first conceived of the idea.<sup>1</sup> Though considerably evolved, the concept of an integrated air and missile defense system is still applicable today. Regionally integrated air and missile defense in the Middle East not only links the above but adds in the complexity of diverse systems. The difficulties associated with multiple participating countries and the connection of differing equipment to a collective system is a task not easily resolved. When achieved, however, this linkage will leverage constrained resources, maximizing the strengths and minimizing the weaknesses of participants.

## THREAT

The need for regionally integrated air and missile defense may not be overtly obvious to most westerners. However member states; Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates (UAE), of the Middle East's Gulf Cooperation Council (GCC) know all too well the role ballistic missiles and the defense thereof will play in the future security of the region. Succinctly surmising the need for regionally integrated air and missile defense, retired United Arab Emirates Air Force General Khaled Abdullah Bu Ainnain, now president of the Dubai-based Institute for Near East and Gulf Military Analysis, puts it this way "With the current proliferation of ballistic missiles we are now caught in the crossfire of inter-regional ballistic missiles and it is very worrying for us. Ballistic missiles were used in previous wars in this region and will be used in any future conflicts, so security against them is very important."<sup>2</sup>

This worry is not unique to UAE; it is a concern for all of the GCC. Although all have economic and political relations with their eastern neighbor, Iran's proximity, military forces, missile inventory and rhetoric are a concern to the GCC. Additionally, Iran's relations to the rest of the world are also forefront in the minds of the GCC. All of these factors are considered when the nations of the GCC are making security decisions.

GCC concerns related to Iran extend beyond its regional presence and the fact that it is a neighbor to all six of the GCC states. The GCC's additional, more existential concerns about Iran include Iran's behavior toward issues of importance to the GCC members and its different system of government, different international objectives, and different culture, language and history. Iran functions more as a constant than a variable in GCC foreign policy deliberations and implementation. Of course, the major constant in their relationship, geographic proximity, leaves the two no choice but to take each other into account on an ongoing basis. The large size of Iran's population, armed forces and natural resources, as well as the hundreds of thousands of Iranians living and working in, and regularly traveling back and forth to the GCC make it imperative for the GCC to seek continuously to engage the positive and constructive forces at work in Iran.<sup>3</sup>

In the view of the United States of course, the obvious threat to regional stability is unquestionably Iran. In his 2002 State of the Union address President Bush articulated U.S. concerns to the world, labeling Iran as well as Iraq and North Korea as members of the “Axis of Evil”. President Bush’s speech was one of many from various U.S. political and military leaders that indicated the U.S. viewed Iran in less than an amenable light and could even be viewed as warnings to Iran as well as other potential aggressors that the United States and its partners stand ready to fight aggression.

We also face in this region state-level threats posed by nations that seek to undermine the security of their neighbors and, ultimately, to destabilize the region. This has played out in forms well short of open conflict through, for example, the deployment and continued development of ballistic missiles and through provocative actions at sea. These activities have the potential to produce situations that can escalate. Efforts by coalitions of like-minded nations to dissuade, deter and be prepared to – as a final resort – respond to intimidation and aggression are, of course, very important in ensuring that situations do not in fact result in actual conflict.<sup>4</sup>

Iran has posed an increasing threat to the region since its Islamic Revolution, or 1979 Revolution. The threat has become even more dangerous as Iran has set out on a missile development course. “With the benefit of assistance from abroad, including North Korea and Pakistan, the Islamic Republic of Iran has moved forward with its ballistic missile program. Iran has had a demonstrated tactical ballistic missile capability since the 1980s, but in June 2003 it marked a major milestone when it deployed its 1,300-kilometer-range Shahab-3, capable of targeting Israel and Turkey, as well as U.S. forces in the Persian Gulf.”<sup>5</sup> The threat of Iran’s missile inventory continues to worry both the United States and the GCC as Iran continues to produce missiles with even greater ranges than the Shahab-3. In September 2007, Iran publicly unveiled a “new” medium-range ballistic missile, the *Ghadr-1*, at a military parade in Tehran. This missile, which Iran claims has a range of 1,800 kilometers, appears to be an extended-range

variant of the *Shahab-3*.<sup>6</sup> Additionally, in November 2007, “Iran carried out a test of its *Ashoura* missile, a 2,000-kilometer-range solid fuel variant of the *Shahab*. ”<sup>7</sup>

With its known missile inventory, Iran has a formidable weapon. “Long-range ballistic missiles armed with weapons of mass destruction will increase the possibility that weaker countries [like Iran] could deter, constrain, and harm the United States [and its allies]. The missiles need not be deployed in large numbers. They need not [even] be highly accurate or reliable; their strategic value is derived from the *threat* of their use.”<sup>8</sup> Iran has threatened the use of their missiles with suggestive language and military demonstration which has shown willingness perhaps even a propensity to use ballistic missiles as a tool to achieve their national objectives. In a Congressional Research Service paper released in January 2009, Steven A. Hildreth, a specialist in Missile Defense, claims that Iran has an active interest in developing, acquiring, and deploying a broad range of ballistic missiles including the medium-range *Shahab-3*.” Additionally, following an Iranian missile launch, on July 18, 2008 a Pentagon spokesman said “Iran was not testing new technologies or capabilities, but rather firing off old equipment in an attempt to intimidate their neighbors and escalate tension in the region.”<sup>9</sup> Iran’s posturing and aggressive behavior do not make Middle East relations easy. Obviously, GCC member nations must have relations with Iran. As stated, there are hundreds of thousands of Iranians living and working in GCC states. The seven nations also are all linked through proximity and economy. Additionally no one GCC nation with the possible exception of Saudi Arabia is equipped to deal with open hostilities/conflict with the powerful Iran, so it only makes sense that a status quo at a minimum be maintained.

With that being the case, why do the member states of the GCC have concern over Iran’s ballistic missile program? Simply stated, aside from the minor fear of a direct Iranian attack,



their primary concern is from the collateral damage that will be inflicted upon their countries, people, resources, and infrastructure as a result of their relationship with the United States. The GCC countries and the United States have a long history of cooperation and defense relationships. Therefore the GCC rightly perceive the threat upon their nations, inherited by their hosting of U.S. Forces.

Iranian tensions between the United States and Israel have been spotlighted in the news recently, over Iran's nuclear ambitions. Though, not focused on here, nuclear proliferation both horizontally or vertically is a concern for the United States and Israel especially in regard to Iran. It is completely plausible that Israel, facing a perceived existential threat from Iran, will take military action to prevent Iran from acquiring nuclear weapons. Regardless of the actual role the United States may play in any action it is certain that any aggression by Iran or Israel toward the other will have significant impact upon the United States. Specifically, it could be expected that United States forces abroad will be targeted in the event Iran uses overt military force against Israel. This expectation is realistic based upon numerous statements from Iranian President Mahmoud Ahmadinejad which link the United States to Israel. It can also be expected that Iran will link the U.S. as involved or at the very least complacent in Israeli military action. This view will make the United States an acceptable Iranian target. With that in mind, the targeting of U.S. Forces could be said to be a spillover from Iranian military action against Israel. This spill-over effect would ripple through the GCC as well, since they host U.S. Military forces, a likely and accessible U.S. target, in the region. Having demonstrated that there is a threat to the stability of the Middle East, it is therefore critical to the United States, its interest, and its partners in the Middle East to address the threat posed by Iran and its missile stockpiles.

## MITIGATION

The area that best demonstrates America's commitment to its Middle Eastern partners is Air and Missile Defense. Air and Missile Defense is an area that not only address the threat, it also strengthens relationships and ensures continued protection of U.S. allies in the region. A notable fact of missile defense is it is purely a defensive measure and therefore accomplishes these tenets without further escalating tensions with Iran. Toward the end of January 2010 as reported by Chris McGreal, it was "leaked" that the United States had deployed U.S. Patriot Missile Defense Systems as well as U.S. missile defense ships to four countries in the region.<sup>10</sup> These deployments, are strategic in nature, and serve multiple purposes. First the deployments will protect U.S. forces in the region. Second, the action is an attempt to deter Iran from launching any attack in the region by indicating the futility of any such attack. Lastly, but not insignificant, the deployment reassures U.S. allies that the U.S. stands ready to defend them in the event of a crises. Stated previously and as the name indicates Air and Missile Defense is strictly a defensive system, and therefore poses no offensive threat to Iran. Critics of this statement could argue that anti-missile technologies provide a latent anti-satellite capability. While this is true of some anti-missile systems, it is not true of the most prolific U.S. anti-missile system. The Patriot system, which engages threat missiles during the terminal phase of flight, has no anti-satellite capability. Terminal engagement means that the threat missile is already inbound to a target area, something not characteristic of a satellite in orbit. Furthermore, Iran is not an extensive space user so any latent anti-satellite capability that may exist by the deployment of anti-missile ships which engage threat missiles in the mid-course phase of flight, is negated by Iran's lack of space utilization.

Since these systems do not pose an ominous offensive threat to Iran the presence of Patriot and Ballistic Missile Defense ships will not significantly increase existing tensions. This exhibition however is not enough. Both the Aegis Ballistic Missile Defense ships and Patriot systems are very capable, but Iran possesses sufficient quantities of missiles to overwhelm U.S. defenses. In a Joint Threat Assessment of Iran's Nuclear and Missile Potential by U.S. and Russian Technical Experts sponsored by the East West Institute it was determined that Iran would likely use multiple weapons to overwhelm defenses. "This is because it is relatively inexpensive for an adversary to build more offensive missiles once it has developed and produced the first one. If Iran were determined to acquire the capability to attack Europe, it would be likely to do whatever it took to overwhelm the missile defenses not only by using decoys to fool the defenses and by deploying stealthy warheads but also by acquiring a force of more than one or two missiles."<sup>11</sup> Though this was an assessment of the threat to Europe it is easy to extrapolate the data to the threat posed by Iran to its Middle Eastern neighbors. If Iran chose to attack The GCC it would simply need to launch missiles of a sufficient quantity to overwhelm U.S. Defenses. Unclassified assessments already appraise Iran has possessing well over 750 missiles capable of ranging GCC nations.

The deployments of U.S. missile defense systems to the Middle East are deployed to key areas and serve the primary function of defending U.S. forces stationed in the Gulf region. The fact that there are missile defense assets in the region, serves as a deterrent to Iran. Their mere presence sends a strong message to Iran that the U.S. is ready to defeat Iranian threat missiles. The U.S. systems not only protect the U.S. Forces in the region and deter Iran from using missiles, they also reassure our partners. Our positioning of defensive assets also protects Host Nation facilities and infrastructure. We also have agreements in place that stipulate that we are

and will protect assets critical to the Host Nation, not just U.S. interest. Maintaining these defensive relationships reassures our allies of our commitment to deploy more systems if the situation requires. These deployments and agreements go along way but the United States in partnership with the GCC states need to increase this protective umbrella. The United States needs to help the GCC develop self and collective protection in the region. Implementation of this system requires the U.S. to move away from the current bilateral approach for Theater Air and Missile Defense (TAMD) to a multilateral approach. Discussed later this multilateral approach is not without challenges but the end result would benefit the GCC as well as the United States. By leading the establishment of a multi-lateral defense agreement between the U.S. and the nations of the GCC the United States can reduce its forward positioned forces, which allows for greater flexibility in countering any threat. This arrangement also benefits the GCC by reducing their dependence upon the United States, and increasing their collective stance against Iran.

## **CHALLENGES**

The first step in the establishment of a multilateral Regionally Integrated Air and Missile Defense system in the Middle East is examining its feasibility. While RIAMD is feasible there are numerous obstacles that must be overcome. Among the most challenging issues are the technological and political differences between participant nations. If these obstacles can be overcome, some questions still remain. Does the United States regional policy include transitioning from bi-lateral arrangements to a multi-lateral arrangement? And what are the benefits to be realized by the establishment of an integrated air and missile defense network?

Technologically speaking Integrated Air and Missile Defense in the Middle East is technologically practical. One simply needs to look to history. As noted above it was Air Chief Marshal Hugh Dowding, who is credited with the creation of the first integrated air defense system. In the years prior to World War II an integrated air defense system meant linking radar, human observers, raid plotting, and radio control of aircraft. In 2010 integrated air defense is a complex multifaceted system of systems. The technological increases in air and missile defense technology make the linkages easier not more difficult.

Linking the systems of diverse nations also has its roots in history. Integrated air defense has existed in Europe since the end of World War II. Following World War II in response to decreased early warning and intercept times of forward positioned Soviet bombers, the western allies of the North Atlantic Treaty Organization (NATO) developed the Integrated NATO Air Defense System (INADS). The system provided early warning for Western Europe linking several radar stations to existing national radar sites. The fact that this system was originally created in the late 1950's illustrates that connecting existing national radars, to provide early warning to a region is possible, especially in view of the technological advances that have occurred in the last 50 years. As recently as October of 2009 the NATO system now referred to as the Air Command and Control System (ACCS) is being refined to combine, and automate, at the tactical level, the planning and execution of all air operations.

Once fully operational the ACCS will provide a unified air command and control system, enabling NATO's European nations to seamlessly manage all types of air operations over their territory, and beyond. NATO members will be able to integrate their air traffic control, surveillance, air mission control, airspace management and force management functions. ACCS will incorporate the most modern technologies, and will make full use of up-to-date data link communications. Through its open architecture, the system is already evolving to meet emerging operational requirements such as those associated with theatre missile defense, and it will be able to adapt to a changing operational environment such as network centric warfare.<sup>12</sup>

The European system is a long established system that has simply evolved technologically and politically as needed to address the threats faced by Europe. Establishing a similar system in the Middle East will not happen overnight, but it will happen. With the realization that NATO has been able to link multiple countries in regional defense gives the GCC an example to follow. A move to begin the process in the Middle East has already begun. Described in more detail in subsequent paragraphs the GCC took a first step in RIAMD by establishing their HAT system. More recently, in April of 2009 delegates to a defense technology summit in Dubai heard that the forces of the GCC states were seeking similar computer systems to better co-operate on combating regional threats. Major General Mohamed al Qamzi, Commander of the UAE Air Force, said: "Technology and science co-operation between countries on the regional and international levels will lead to security for all."<sup>13</sup> Computer commonality is of course only one aspect of this integrated system. Although desirable it is not financially feasible to expect each of the 6 countries to replace 100% of their air defense systems with some new common system. The solution and next best thing to a common system then, is to figure out how to make dissimilar systems talk to each other.

The solution already exists, Bi-directional cross-domain software. This software not only already exist, it is even already being applied in the field of ballistic missile warning and defense. This Bi-directional cross-domain software would allow a computer of one GCC country to communicate with a computer in another GCC country, even if the two countries don't regard the information at the same classification level. Using this type of software would allow faster, near-real time exchange of threat information. Additionally, installing other commercial off the shelf collaboration tools in the air operation centers of the GCC would allow

air battle managers to communicate in real time while sharing time sensitive information. An example of this off the shelf solution would be something similar to Adobe® Acrobat® Connect™. Though this software does not share target quality data, it does provide air defense specialist of multiple countries the ability to share information about possible threat aircraft and missiles. It would allow operators based on collaborative intelligence to determine more easily which country was at risk as well as planning for possible engagements by de-conflicting which country and weapon system will conduct the engagement. Furthermore, Several GCC nations are in the process of acquiring, or have expressed interest in acquiring the U.S. Foreign Military Sale of Shared Early Warning (SEW), near real-time information on air and missile attacks that would allow maximum time for a nation to defend itself. Additionally, all GCC countries have expressed a desire to obtain, or are already obtaining, active defense systems. These procurements demonstrate the GCC's commitment to regional stability, security and interoperability with each other and the United States.<sup>14</sup>

These types of collaborations would allow GCC states at a minimum to warn one another of the threat. It also would allow for potential mutual defense. If the members of the GCC follow through on statements of commitment to each other's defense, a scenario exist in which one GCC nation with an active defense capability successfully engages the missile targeting another GCC nation. This type of security fosters trust which leads to stability in the region. Additionally, this trust can lead to greater defense, since particular nations may not be able to acquire and maintain their own active defense systems; multiple nations could pool resources and station a GCC joint active missile defense system between multiple countries providing each a better defensive posture. Employing these and similar solutions to the GCC's independent networks will increase the overall command and control of air defense resources in the region.

Already in place the GCC countries share information and pass control of commercial air traffic as it transits the airspace of the various countries. It would not take profound resources to begin sharing this information and radar pictures in a military defensive effort. The HAT system described later was a move in this direction.

Another of the biggest obstacles in establishing regionally integrated air and missile defense is the political identities of the nations involved. The GCC was established in the early 1980s after a decade of plans and negotiations. The agreement basically includes coordination, integration, and interconnection between members in all areas. The GCC collective has social, economic, and political goals, but each nation also has its own internal and external challenges. “The Gulf States are relatively young nations and political and military power is distributed along tribal lines. This distribution often precludes internal and international cooperation. GCC Military expenditures have attempted to balance each other [GCC members do not currently have unqualified trust among themselves] in addition to external threats [Iran and others]. This condition exists because the members of the GCC continually jockey for position within the organization and the region. The members of the GCC have procured a wide assortment of weapons, from multiple weapon manufacturing countries. The result is ineffective use of resources and redundant military effort that may not support regional defense goals.”<sup>15</sup>

Political distrust also exists between members of different Muslim sects and this distrust is continued broadly by each of the nations in the GCC. Every member is reluctant to share information with the other members. This reluctance stems from each nations desire to maintain its relative autonomy and prominence with regard to the other nations. Sharing information could lead nations to reveal their lack of information or lack of capability to deal with external threats including the threat however minuscule from other GCC members. Each GCC member



state perceives identifying these weaknesses as an opportunity for the others to exploit them or at a minimum a lessening of their relative status. "Cooperation in the GCC cannot be taken for granted, although several heads of individual states are related. Saudi Arabia, under its first king, Abd al-Aziz Ibn Saud, once ruled most of the GCC states. It is no secret that the Saudis aspire to leadership of the GCC; however, the other GCC members tend to be skeptical of Saudi motives and naturally have their own national sovereignty concerns, pride, and goals to consider."<sup>16</sup>

There are also additional political considerations.

Some GCC states are leery of linkage with the United States because of its close ties with their avowed enemy, Israel, and because of its record of inconsistent policy and action in the Middle East. Close GCC association with the United States could draw the ire of more radical Arab states and Iran. The GCC as a defense alliance is in a precarious position--its members not entirely trusting each other and yet needing to be drawn together for mutual support. They are unable to defend against the large regional powers and therefore want to have US assistance in a pinch, but they do not want a close relationship in the meantime because that could in itself cause a crisis.<sup>17</sup>

To resolve this distrust between the GCC members, The United States' plan of Regionally Integrated Air and Missile Defense is the way ahead. This effort, once fully realized, will allow the GCC to foster a better working relationship as well as lesson their dependence upon the United States.

## **POLICY**

With political uneasiness resolved, the next step in the process of establishing RIAMD in the Gulf is a multi-lateral arrangement. At present the United States has independent bilateral military ties with the member states of the GCC. The question now is: Does the United States and the GCC desire to move in this direction? It appears as if the answer to this question is a unified and resounding yes. The U.S. now envisages a situation in which the GCC states act

directly with and to some extent relies upon one another in a multilateral system. In a speech at the first plenary session of the 2008 International Institute for Strategic Studies (IISS) Regional Security Summit: the Manama Dialogue, U.S. Defense Secretary Dr. Robert Gates, addresses The US and the Regional Balance of Power. In his remarks Secretary Gates speaks of the importance of multi-lateral security in the region specifically in the area of Air and Missile Defense.

The final topic I wanted to discuss is related to what I have already mentioned: regional security through venues like the Gulf Cooperation Council (GCC) and the Gulf Security Dialogue (GSD). While the GCC and the GSD cover a wide range of issues. What these challenges have in common is that they simply cannot be overcome by one, or even two, countries no matter how powerful or wealthy. They require multiple nations acting with uncommon unity. That is particularly true of air defenses and maritime security, areas where multinational cooperation is not just a preference, but a necessity. The momentum from last year's GSD meetings led to significant progress in air and missile defense throughout the Middle East. All told, multilateral efforts like these are encouraging. They bolster the defensive capabilities of everyone involved, while not diminishing pre-existing bilateral or multilateral relationships. They are a model for how all of us can better address the challenges of the twenty-first century by fostering cooperation between and among the nations of the Gulf.<sup>18</sup>

As evidence by Secretary Gates' speech U.S. policy does desire to move to multi-lateral relationships. Further evidence of this truth can be seen in remarks made at the same conference by United States Central Command Commander, General (Dr.) David H. Petraeus PH.D. "The complex transnational threats that we face require cooperative solutions, pursued in partnership. Undertaking multilateral activities in the pursuit of common interests combines military, diplomatic and economic capabilities of like-minded nations, builds capabilities where required, and leverages comparative advantages of the participants. As history has shown this kind of cooperation in a region and internationally can, over time, persuade destabilizing actors to reconsider their actions. Increasingly, nations in this region have come to recognize the

importance of strengthening multilateral partnerships for this purpose.”<sup>19</sup> Gen Petraeus, continued to address the need for greater cooperation and multilateralism. He identified five areas in which the U.S. could continue to improve as well as expand existing efforts. One of the key areas mentioned was air and missile defense.

Firstly, we can expand existing bilateral air and missile defense initiatives and work towards true multilateral cooperation in this important defensive area. Ongoing initiatives include the pursuit of a shared early warning capability. This is obviously an important effort to maximize our collective defensive potential. Efforts to develop a common air picture in this area are another important aspect of this work. These capabilities are intended to reduce reaction time to imminent threats. In addition, various bilateral active missile defense measures that are underway are vital elements of regional deterrence and of defensive cooperation, and they should be expanded also. All of these will, of course, require the expansion also of interoperable command, control and communication capabilities. These are the critical enablers for such initiatives. Concerted persistent efforts will be required to expand these initiatives, but they are worth the effort as they will not only enhance our collective defensive capability, they will also serve as a very important manifestation of our collective will and our collective deterrent posture.<sup>20</sup>

In his five challenges General Petraeus went on to list other areas indirectly related to the expansion of air and missile defense cooperation. He mentioned an increase in infrastructure protection as well as greater utilization and expansion of regional training centers. These areas will be commented upon in subsequent paragraphs.

Having demonstrated a clear U.S. desire to move to multilateral cooperation in the area of missile defense, the question remains if this is desired by the members of the GCC? The answer to this question is also a resounding yes. Beginning in 1997 the GCC undertook a collective defense initiative called the Hizam al-Taawun (HAT or "belt of cooperation"). This program began when GCC defense ministers collectively agreed to purchase a ground-based early warning system that would link the GCC states' radars and communication systems. The HAT

system was first activated in 2001. Although the HAT system was and is moving in the direction that the U.S. currently desires, the system is not sufficient. HAT was designed as a mechanism for the GCC to combat aircraft. HAT, however could be a stepping stone for increased multi-lateral cooperation and the establishment of RIAMD. Technological improvements could allow the system to have application in the realm of missile warning, but with the exception of Patriot systems fielded by Kuwait, Saudi Arabia, and soon U.A.E. the GCC have no anti-missile weapon system. Nor does the GCC possess any linkages between weapon systems, specifically the U.S. and GCC Patriot systems deployed in the region, nor other systems like the U.S. Aegis BMD ships or other GCC air defense systems. A regionally integrated air and missile defense system is something that is desired by the GCC, but is not currently in place.

Further evidence of the desirability of a multilateral RIAMD can be seen in reactions to remarks delivered by General Petraeus at the U.S.-Islamic World Forum in Doha, Qatar. This forum was focused on "The Emerging Regional Security Network". "Essentially, the overall regional security network is comprised of a number of layered, interconnected subordinate networks – each centered on an area of cooperation between countries. Participating nations work together to expand each of these individual networks and to link them with each other to enhance the collective potential of the overall regional network. In some cases, this involves pursuing bilateral initiatives, in others it involves turning bilateral initiatives into multilateral initiatives, and in still other cases it involves leveraging a multilateral initiative from one network by activities related to another network."<sup>21</sup> General Petraeus reiterated his attempt to foster security in an appearance before the Senate Armed Services committee in April of 2009. He mentioned throughout his testimony that air and missile defense cooperation in the Middle East was expanding along with other security improvements.<sup>22</sup> Indicative of the GCC's

enthusiasm for RIAMD In a June 2009 Article in U.A.E.'s English Language Newspaper Major General Timothy Rush, a U.S. Defense expert, states that Gulf military officials have praised the idea of RIAMD in principle. In the Same article Brigadier General Mohammed al Abri, the head of the UAE's air defense team, is quoted as saying "it's a good idea, The GCC is like one country with different names and they have to work as one country rather than as a group."<sup>23</sup>

## **PROCESS**

Clearly RIAMD is feasible, both technically and politically. I have also demonstrated that RIAMD is desirable from both a U.S. Policy perspective as well as politically for the GCC. Regionally Integrated Air and Missile Defense is also achievable. The United States has already started down the road to RIAMD. Taking up General Petraeus' challenge of establishing multilateral air and missile defense initiatives, as well as increasing infrastructure protection and capitalizing on the notion of collective training centers, the United States Army Central Command and United States Air Forces Central Command have embarked on a Regionally Integrated Air and Missile Defense Center of Excellence. This system of systems or network of networks as General Petraeus put it in his 2009 remarks at the U.S.-Islamic World Forum contains many plans and increased capabilities. General Petraeus goes on to highlight some of the networks that comprise the Regional Security Architecture. Specifically he mentions air and missile defense as a leading initiative. "A network of information sharing is a third growing area of cooperation. This includes countries working toward a so-called Common Operating Picture and Shared Early Warning systems—both essential elements of ballistic missile defense, an area that has seen significant progress in the past year alone."<sup>24</sup>

The significant progress General Petraeus is referring to is what has become known as the Air and Missile Defense Center of Excellence (CoE). The roadmap for RIAMD includes a stop at the CoE. The Center of Excellence will provide the baseline connectivity that can be developed as the backbone for RIAMD. The Center of Excellence is both an idea and a place that will bring the U.S. and GCC partnerships closer and actually serve as the test bed for RIAMD. The COE provides a RIAMD like capability in the CENTCOM AOR by the end of CY 11. This capability combines a coalition simulation center with a simulation network to connect Joint and Coalition Forces. The simulation center will provide a venue for individual and collective training for Coalition forces. Even though the CoE is only another step in the process to RIAMD it is not a small one. Creating this Joint and Coalition Center of Excellence training environment involves three phases: Phase I led by United States Army – Central, based on the Army’s Title X responsibilities involves proof of principle and limited Patriot forces, Phases II and III led by United States Air Forces-Central, based on duties assigned the AFCENT commander in his role as the Area Air Defense Commander involves limited Joint training and lastly training in a full Joint/Coalition environment.<sup>25</sup> The end state of the Center of Excellence is a step well down the road of Regionally Integrated Air and Missile Defense. After achievement of the training portion of the CoE, it would not be difficult to tie in Shared Early Warning and use the system as an avenue for the Air Common Operating Picture.

## **CONCLUSION**

As the proceeding paragraphs have demonstrated The United States is moving in the right direction to bolster air and missile defense in the Middle East. The threat posed by Iran is a destabilizing factor in the region. RIAMD is an effort to check Iran’s regional hegemony.

Regionally Integrated Air and Missile Defense is an ambitious endeavor, but its rewards cannot be overstated. Once fully realized RIAMD will produce synchronized regional missile defense in the Gulf. This linkage will enhance the overall decision making process, significantly improve interoperability between the US and the Gulf Cooperation Council and increase the collectives' defense. Beginning with the HAT system and looking to expand it to something resembling NATO's ASCC system, in conjunction with creating the Center of Excellence from scratch, the U.S. and GCC have indicated that a collective system is feasible, desirable, and achievable and that the development of such a system demonstrates a commitment to a stabilized Middle East.

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